

A Virtual Jump Rope

Background of Invention

1) Field of the Invention

This invention relates generally to fitness devices, exercise devices and jump rope simulators and more particularly to a virtual jump rope for providing an exercise workout simulating the jumping of a jump rope as well as for providing a total body workout similar to aerobics.

2) Description of the Prior Art

Jump ropes have been used for years as recreation and/or exercise devices. Although a jump rope may comprise nothing more than a length of an elongated flexible element, such as a rope, it is common practice to attach handles to the opposite ends of the rope to facilitate the rope skipping operation. To prevent the rope from becoming twisted in use, some jump ropes employ bearings for attaching the handles to the ends of the rope. It is known to use bearings of various designs, including ball bearings, for this purpose.

It is also known to add weights to the rope. This may be done to increase the centrifugal force generated in skipping and/or to widen the bottom of the arc of the rope. In this connection, it is known to attach members to the rope and to provide thickened regions along the rope. In any event, the weighted portion of the rope is characteristically, either totally immovable or subject to sliding along the rope due to the centrifugal force exerted thereon in jumping or to other factors. Moreover, the weights may appear unsightly and they add to the cost of the jump rope.

Traditional jump ropes have been popular for users of very high fitness levels, such as professional boxers, but because of the high intensity workout and the difficulty in using jump ropes, many people do not jump rope as part of their exercise workout. In addition, jumping rope is tedious, limited in movements to only do a few basic arm and leg movements which can become boring after jumping rope for awhile. Also, the rope of a traditional jump rope travels under the user's feet and gets caught frequently, even when used by skilled users, which causes frustrating stops & restarts during a workout.

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2 The use of jump rope simulators is known in the prior art. More specifically,
3 jump rope simulators heretofore devised and utilized are known to consist basically of familiar,
4 expected and obvious structural configurations, notwithstanding the myriad of designs
5 encompassed by the crowded prior art which have been developed for the fulfillment of
6 countless objectives and requirements.

7 While jump rope simulators are known in the prior art, none have been
8 commercially successful. The prior art simulators have been difficult and expensive to
9 manufacture compared to jump ropes. Also the prior art simulators have been unsafe because
10 they can strike and harm the user. Prior art simulators can hit the user on the arms or body with a
11 rotating hard object, or hit the user on the body, head or in the face. Moreover, prior art jump
12 rope simulators are not practical for use in aerobics classes or group exercise workouts because
13 they require a large amount of room and are dangerous as mentioned above.

14 In these respects, the jump rope simulator according to the present invention
15 substantially departs from the conventional concepts and designs of the prior art, and in so doing
16 provides a safe and enjoyable apparatus primarily developed for the purpose of providing an
17 exercise workout simulating the jumping of a jump rope, as well as for the purpose of providing
18 numerous additional exercises.

19 The importance of overcoming the various deficiencies noted above is
20 evidenced by the extensive technological development directed to the subject, as documented by
21 the relevant patents. The closest and apparently more relevant developments in the patent
22 literature can be gleaned by considering US 5,895,341(Jones), US 4,693,469(Cedar) , US
23 1,505,473(Klubnick), US 5,842,956(Strachan), US 4,092,799(Anderson), US
24 5,058,883(Dybvik), US 3,249,356(Schwietzer) and US 2,223,174(Huges).

Summary of the Invention

It is an object of the invention to provide an exercise device.

It is an object of embodiments of the present invention to provide a virtual jump rope exercise device.

It is an object of embodiments of the present invention to provide a virtual jump rope exercise device comprised of an elongated element having a loop.

It is an object of embodiments of the present invention to provide a virtual jump rope exercise device comprised of an elongated element having a means to change the weight or air resistance of the elongated element.

It is another object of embodiments of the present invention to provide a virtual jump rope that doesn't require a rope going under the user's feet and which provides the same exercise as a traditional jump rope, so there is no cord to get caught on the user's feet, and users do not have to stop and restart their exercise.

Still another object of embodiments of the present invention is to provide a jump rope simulator for providing a total body workout including numerous arm and leg movements that can not be performed with a traditional jump rope and which can be used in group exercise activities such as aerobics and can be used while walking or jogging.

It is another object of embodiments of the present invention to provide a jump rope simulator which may be easily and efficiently manufactured and marketed.

It is a further object of embodiments of the present invention to provide a jump rope simulator which is of a durable and reliable construction.

An even further object of embodiments of the present invention is to provide a jump rope simulator which has a low cost of manufacture with regard to both materials and labor, thereby making such jump rope simulator economically available to the buying public.

Still another object of embodiments of the present invention is to provide a jump rope simulator for providing an exercise workout simulating the jumping of a jump rope.

To accomplish the above objectives and other objectives, the embodiments of the present invention provide a jump rope simulator or virtual jump rope. An embodiment of the invention can be characterized as an exercising device that is held and rotated in use. The